

# DSEN ABSTRACT

## Safety and effectiveness of dose-sparing strategies for intramuscular seasonal influenza vaccine: A rapid scoping review

### Summary

- The rapid scoping review aimed to identify studies of dose-sparing strategies for administration of intramuscular seasonal influenza vaccines in healthy individuals. By searching Embase, Medline and the Cochrane library, we found 13 RCTs on the efficacy and safety of fractional doses of influenza vaccine provided via the intramuscular route to healthy adults and children.

### Key messages

- We found that due to the low number of studies in healthy adults, namely one study assessing laboratory confirmed influenza and two evaluating influenza-like illness in adults, there remains a need for further research on the clinical effectiveness of IM dose-sparing strategies using vaccines currently available. These studies were used to inform a systematic review with meta-analysis which were commissioned by the PHAC.

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### What is the issue?

- A shortage in influenza vaccines was of concern in 2020 as the novel coronavirus diseases (COVID-19) closely mimicked symptoms of seasonal influenza
- The question of vaccine shortage remains relevant in Canada and other jurisdictions

### What was the aim of the study?

- The objective of this rapid scoping review was to identify studies of dose-sparing strategies for administration of intramuscular seasonal influenza vaccines in healthy individuals of all ages.

### How was the study conducted?

- MEDLINE, EMBASE, the Cochrane library, and grey literature was searched for relevant studies published in English in the last 20 years
- References of relevant systematic reviews and included studies were also scanned
- Title/abstract and full-text screening were carried out by two reviewers independently
- Data extraction was conducted by one reviewer and verified by a second reviewer
- The yield and volume of research found was summarized descriptively

### What did the study find?

- 13 RCTs were included; and only two studies reported on the effectiveness of our outcomes of interest (i.e., laboratory-confirmed influenza and influenza-like illness).
- The review found that the most common interventions were the trivalent vaccine, followed by the quadrivalent influenza vaccine
- There remains a need for further research due to the low number of studies in health adults and the lack of studies assessing confirmed influenza and influenza-like illness

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